

REMARKS

112 Rejections

Paragraph 2 of the above referenced Office Action states that Claims 5 and 13 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicants have herein canceled claims 5 and 13. As such, Applicants respectfully submit that the 35 U.S.C. § 112, second paragraph, rejection is moot.

102 Rejections

Paragraph 5 of the above referenced office action states that Claim 1 is rejected under 35 U.S.C. § 102 as being clearly anticipated by Glover, U.S. patent No.959,054 (hereafter Glover). Independent Claim 1 has been amended to include the limitations of Claim 2 and Independent Claim 10 has been amended to include the limitations of Claim 11 and to more particularly point out aspects of the present invention. As such, Applicants have cancelled Claims 2 and 11 without prejudice. Specifically, Claim 1 as amended recites in part:

a first underlying layer disposed beneath said first region, said first underlying layer adapted to achieve a first polishing effect in said first region; and

a second underlying layer disposed beneath said second region, said second underlying layer adapted to achieve a second polishing effect in said second region such that said wafer polishing machine achieves a customized process effect by selectively moving said wafer frictionally against said first region and said second region.

Applicants respectfully submits that the present invention as recited in newly amended Claim 1 is not anticipated within the meaning of 35 U.S.C. § 102 by Glover.

Paragraph 6 of the above referenced Office Action states that Claims 1-4, 5-6, 8, 10-14, and 16 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Cote et al., U.S. Patent No. 5,534,106 (hereafter Cote). Applicants have herein amended independent Claims 1, 10, and 18 to more clearly point out aspects of the present invention. Accordingly, Applicants respectfully assert that the present invention as recited in newly amended Claims 1, 10, and 18 is not anticipated by Cote within the meaning of 35 U.S.C. § 102(b).

Specifically, Cote discloses “a rotatable polishing pad having an upper surface divided into a plurality of wedge shaped sections, including an abrasion section and a polishing section” (col 2 lines 51-54). At col 2 lines 61-67, Cote discloses a rotatable pad including:

... an underlayer and a surface layer including two wedge shaped sectors. One of the wedge shaped sectors is a relatively hard sector and the other wedge shaped sector is a relatively medium hard sector as compared to each other . The underlayer is made of a material which is softer than both sectors. (emphasis added)

Applicant respectfully submits that polishing pad of Cote is different from the customized polishing pad as recited in newly amended independent Claims 1, 10, and 18. For example, with respect to amended Claim 1, Claim 1 of the present invention recites a customized polishing pad having:

a first underlying layer disposed beneath said first region, said first underlying layer adapted to achieve a first polishing effect in said first region; and
a second underlying layer disposed beneath said second region, said second underlying layer adapted to achieve a second polishing effect in said second region such that said wafer polishing machine achieves a

customized process effect by selectively moving said wafer frictionally against said first region and said second region. (emphasis added)

As recited in Claim 1, the first underlying layer and the second underlying layer achieve the first and second polishing effects respectively, not the surface layer. This is directly opposite the teaching of Cote.

Further, dependent Claim 3, for example, adds limitations describing the first and second underlying layers having “differing amounts of hardness when said wafer is frictionally moved against said polishing pad”. Cote does not show or disclose underlying layers having different hardness with a common surface layer, wherein the underlying layers are adapted to achieve the specific polishing effect. As described above, Cote discloses a surface layer having two “wedge shaped sectors” of different hardness. Applicant respectfully submits that a non-uniform surface layer having different hardness as opposed to underlying layers is different from the present invention as recited in Claim 1.

Additionally, dependent Claim 4, for example, adds limitations describing the first and second underlying layers “having differing amounts of thickness when said wafer is frictionally moved against said polishing pad” to achieve the specific polishing effect. Applicant respectfully submits that underlying layers having different thickness as recited in Claim 1 is not shown or suggested by Cote.

With respect to independent Claims 10 and 18, Claims 10 and 18 have been amended to include include the limitations of Claim 1 regarding the first and second underlying layers having different hardness. Accordingly,

Applicants respectfully assert that the present invention as recited in each of independent Claims 1, 10, and 18 is not anticipated by Cote within the meaning of 35 U.S.C. § 102(b).

103 Rejections

Paragraph 9 of the above referenced Office Action states that Claims 9 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Cote et al.. Paragraph 9 further acknowledges that Cote does not disclose a linear pad as recited in dependent Claims 9 and 17. In addition to not showing a linear pad, Applicants respectfully submit that Cote does not show a polishing pad having a first and second underlying layer having differing hardness to achieve a specific first and second processing effect, as recited in base Claims 1 and 10. As such, Applicants respectfully assert that the present invention as recited in dependent Claims 9 and 17 is not shown, suggested, or rendered obvious by Cote within the meaning of 35 U.S.C. § 103(a).

Paragraph 10 of the above referenced Office Action states that Claims 7 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Cote et al.. in view of Neff, U.S. Patent No. 5,578,099. Applicants respectfully submit that the cited references, alone or in combination, do not show a polishing pad having a first and second underlying layer having differing hardness to achieve a specific first and second processing effect, as recited in base Claims 1 and 10. As such, Applicants respectfully assert that the present invention as recited in dependent Claims 7 and 15 is not shown, suggested, or rendered obvious by Cote in view of Neff within the meaning of 35 U.S.C. § 103(a).

Conclusion

In light of the above-listed amendments and remarks, Applicant respectfully requests reconsideration of the rejected Claims. Claims 5 and 13 are canceled, rendering the 35 U.S.C. 112 rejections moot. Independent Claims 1, 10, and 18 have been amended to overcome the 35 U.S.C. 102 rejections based on Glover, and on Cote, and Claims 2 and 11 are cancelled. Independent Claims 1, 10, and 18 have been amended to overcome the 35 U.S.C. 103 rejections based on Cote, and on Cote in view of Neff. Since each dependent claim includes the limitations of the respective independent claim, Applicants respectfully submit that the dependent claims each overcome the rejections of record. Accordingly, Applicants submit that Claims 1, 3-4, 6-10, 12, and 14-19 are now in condition for allowance.

The Examiner is urged to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Please charge any additional fees or apply any credits to our PTO deposit account number: 23-0085.

Respectfully submitted,

WAGNER, MURABITO & HAO

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Glenn Barnes
Registration No. 42,293
Two North Market Street
Third Floor
San Jose, CA 95113
(408) 938-9060